

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) Thermal ink jet printhead (40) comprising nozzles (56), chambers (57) in turn comprising resistors 27, and a groove (45), made in a substrate (140), suitable for fluidly ducting ink (142) to said chambers, (57)  
~~characterized in that~~ wherein said groove (45) comprises a first portion (45') produced by means of a dry etching, and a second portion (45'') produced by means of an electrochemical etching.
2. (Currently amended) Printhead according to claim 1, ~~characterized in that~~ wherein said substrate (140) is made of silicon.
3. (Currently amended) Printhead according to claim 2, ~~characterized in that~~ wherein said nozzles (56) and said resistors (27) are disposed in columns parallel to one and the same geometric reference (63).
4. (Currently amended) Printhead according to claim 3, ~~characterized in that~~ wherein said first portion (45') of said groove (45) has a substantially rectangular shape having a greater side parallel to said geometric reference (63).
5. (Currently amended) Printhead according to claim 3, ~~characterized in that~~ wherein said second portion (45'') of said groove (45) has a substantially rectangular shape having a greater side parallel to said geometric reference (63).
6. (Currently amended) Printhead according to claim 3, ~~characterized in that~~ wherein said first portion (45'') of said groove (45) also comprises a wet etching having a substantially rectangular shape and a greater side parallel to a crystallographic axis of said silicon which constitutes said substrate (140), and that said crystallographic axis cannot be parallel to said geometric reference (63).

7. (Currently amended) Printhead according to claim 1, ~~characterized in that~~ further comprising it also comprises an N-well layer (36) positioned for forming a portion of the groove.
8. (Currently amended) Printhead according to ~~claim 7~~claim 1, ~~characterized in that~~ further comprising it also comprises a P+ layer (37) positioned adjacent to the substrate and within the groove between the N-well layer.
9. (Currently amended) Printhead according to claim 1, ~~characterized in that it also includes~~ further comprising an anti-cavitation layer (26) of electrically conducting material.
10. (Currently amended) Printhead according to claim 9, ~~characterized in that~~ wherein said anti-cavitation layer (26) of electrically conducting material forms a single equipotential surface through said head (40).
11. (Currently amended) Printhead according to claim 9 ~~characterized in that~~ wherein said anti-cavitation layer (26) is made of tantalum.
12. (Currently amended) Printhead according to claim 11, ~~characterized in that~~ wherein said anti-cavitation layer (26) of tantalum is between 0.4 and 0.6  $\mu\text{m}$  thick.
13. (Currently amended) Printhead according to claim 9, ~~characterized in that~~ wherein said anti-cavitation layer (26) is covered by a layer of gold.
14. (Currently amended) Printhead according to claim 13, ~~characterized in that~~ wherein said layer of gold is between 100 and 200  $\text{\AA}$  thick.
15. (Currently amended) Printhead according to claim 9, ~~characterized in that it also~~ comprises further comprising a first metal (25) or a second metal (31) and that said first metal

(25) or said second metal (31) forms one or more electric contacts with said anti-cavitation layer 26.

Claims 16-24 (Canceled).

25. (New) A thermal ink jet printhead, comprising:

- at least one nozzle connected to an ink chamber;
- a substrate, the substrate having a lower face, an upper face, and a groove for supplying ink, the groove extending into the substrate from the lower face and towards the upper face, the groove comprising a top portion; and
- an N-well layer positioned laterally for surrounding at least a portion of the groove.

26. (New) The printhead of claim 25, wherein the N-well layer is positioned laterally for surrounding the top portion of the groove.

27. (New) The printhead according to claim 26, further comprising a silicon P+ layer contacting the upper face of the substrate and overlying the top portion of the groove in the substrate, the silicon P+ layer being positioned within the N-well layer.

28. (New) The printhead according to claim 25, wherein the substrate comprises P-type silicon.

29. (New) The printhead according to claim 25, further comprising an insulating layer lateral to the groove and positioned on the upper face of the substrate.

30. (New) The printhead of claim 29, further comprising an anti-cavitation layer overlying the insulating layer.

31. (New) The printhead of claim 29 further comprising a resistor overlying the insulating layer and another insulating layer overlying the resistor.

32. (New) The printhead according claim 25, wherein the N-well layer further includes walls which form a portion of the groove.

33. (New) The printhead according to claim 27, in which the silicon P+ layer is electrochemically etched so as to connect the groove to the chamber for supplying ink thereto.